



Environmental Protection Agency
Syntex Facility Site and Air Quality Update
November 18, 2019
Verona, Missouri
(Presentation will begin at 6:30)

Tonight's Meeting



- 6:00 p.m. to 8:30 p.m.: Open House format with presentation and question and answer session
- Representatives from EPA, Missouri Department of Natural Resources, and Missouri Department of Health and Senior Services
- After presentation and Q&A, agency representatives available for further discussion with residents
- Presentation in two parts: Superfund update followed by air quality update

Superfund Private Well Sampling



- Conduct private drinking water well survey
- Access Agreements
- Sample planning
 - Data quality assurance, records review, previous studies,

Superfund: Denney Farms



- 1971 - NEPACCO disposed of drums of hazardous waste in shallow trench
- 1980 – EPA investigated the disposal area
- Sept. 1980 – Syntex enters into Consent Decree to address disposal area
- 1981 – Excavation of all drums and contaminated soil. Confirmation sampling of excavation
- 1984 – 1989 – Incinerator operation and site restoration

Superfund Groundwater Investigation



- Work remaining
- Phase 1b groundwater sampling
- Phase 2 soil sampling
- Trench Area Groundwater Monitoring Summary Report – in review

Technical Assistance Resources



- Technical Assistance Needs Assessment (TANA)
- Technical Assistance Grant (TAG)
- Technical Assistance Services for Communities (TASC)
- Community Advisory Group (CAG)

Air Emissions & Role of EPA



- First, EPA provides oversight to the states since many states are directly delegated the authority to implement the Clean Air Act.
 - In the case of Missouri, the Department of Natural Resources is the state agency responsible for ensuring the Clean Air Act is implemented and holds the legal authority to do several things:
 - Require stationary sources of air pollution to get air permits and report their emissions and
 - Evaluate the types and amounts of emissions reported by an air pollution source.
- Second, EPA provides technical support.

Oversight of BCP



- BCP has had several permits with MDNR since beginning operations at the site in 2001.
- The state recently issued a renewal of BCP's operating permit which lists all the regulatory requirements for them.
 - Operating permits last for 5 years and are required for all major sources of air emissions in the state.
 - This operating permit requires BCP to **conduct leak detection, operate below an emissions limit and operate an air pollution control device.**

Oversight of BCP



- Also consistent with the Clean Air Act and their permits, BCP reports to the state and EPA the amount of air emissions generated by the facility.
 - The emissions which BCP reports include carbon monoxide, nitrogen oxide, particulate matter, sulfur oxides, volatile organic compounds, ethylene glycol, hydrochloric acid, and ethylene oxide.

Hazardous Air Pollutants (HAPs)



- Identified in the Clean Air Act (CAA)
- May cause cancer, birth defects, respiratory illness or other adverse ecological effects
- Currently 187 different chemicals or chemical groups
 - Benzene, Formaldehyde, Perchloroethylene, Lead, Hydrochloric Acid, etc.
- Regulated under Section 112 of the CAA
 - Ethylene Oxide is one of the 187 chemicals listed



What is Ethylene Oxide?

Ethylene Oxide: Revised Cancer Risk 2016



- In 2016, EPA updated the risk value for Ethylene Oxide
- Newer Studies on Risk to Human Health
- Increased risk of non-Hodgkin lymphoma, myeloma, and lymphocytic leukemia and breast cancer in women over a long term (lifetime of approximately 70 years)

Ethylene Oxide: Revised Cancer Risk 2016



- 2014 NATA shows most areas with elevated risks driven by ethylene oxide compared to previous NATA releases. (2005, 2008, 2011)
- Higher risk now does not mean there is more of this compound in the air in these places than before

Ethylene Oxide Properties



- Ethylene Oxide is a gas at room temperature
- Colorless and flammable gas with likely no odor outdoors
- Odor concentration threshold for ethylene oxide is much higher than we would expect in ambient air
- There are two key uses for ethylene oxide:
 - It is used to make other chemicals in everyday products, such as ethylene glycol (anti-freeze), plastics, PVC pipe and cosmetics
 - Sterilization of medical and dental devices that can't be sterilized other ways



EPA and **MDNR** have been working with BCP to review their ethylene oxide emissions.

Actions Taken by BCP



- Conducted a review of emission measurements
 - 685 points surveyed using EPA approved methodology
- Established leak detection program to ensure capture and control of emissions
- Continuing to evaluate emissions and ensure calculations are valid

Contact Information



For Superfund questions:

Elizabeth Kramer, Community Involvement Coordinator

Kramer.Elizabeth@epa.gov

913-551-7386

For Air Quality questions:

Ben Washburn, Public Affairs Specialist

Washburn.Ben@epa.gov

913-551-7364